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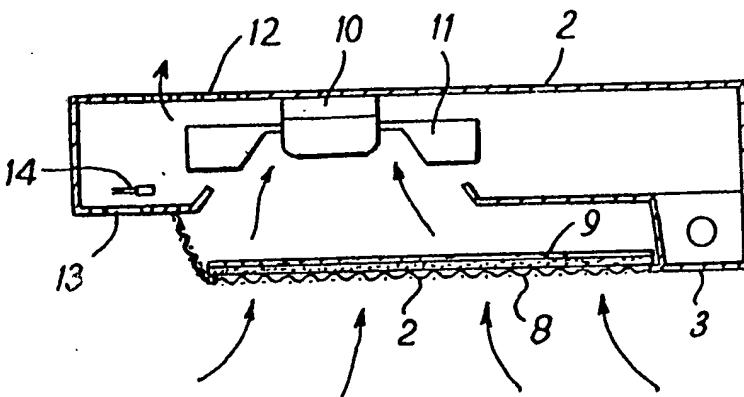
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(54) COOKER HOODS

(57) A cooker hood incorporates an electric fan (10) and a temperature sensor (14), operation of the fan being

automatically controlled by the sensor in accordance with the temperature at the cooker hood. Manual over-ride may be provided to allow continuous operation of the fan if desired. The hood may be recirculatory.

FIG. 2



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FIG. 1

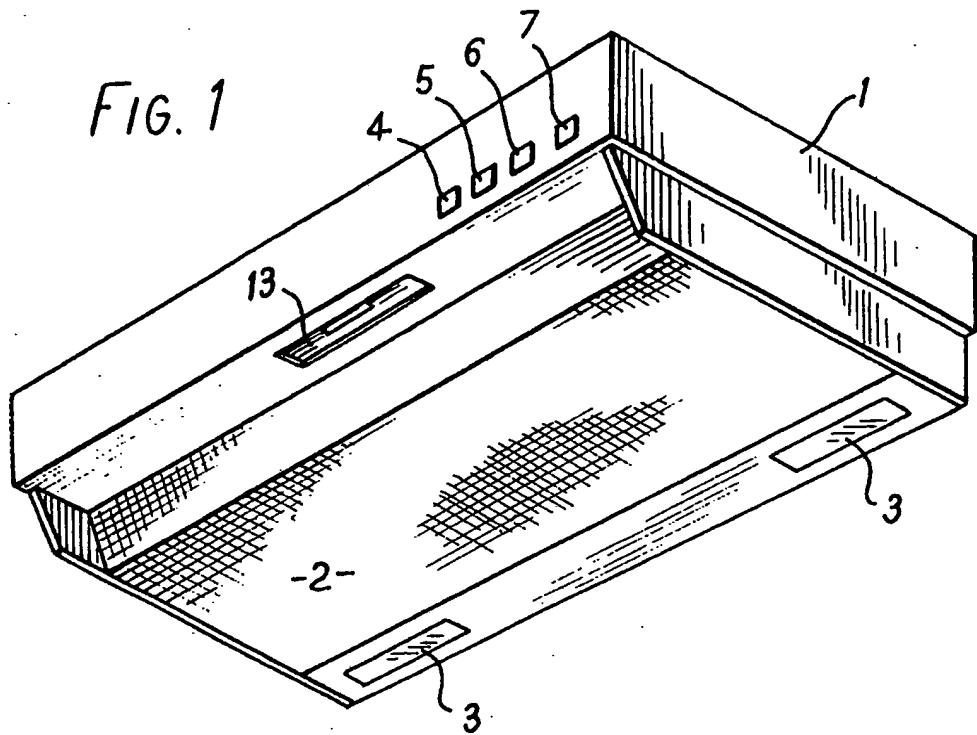
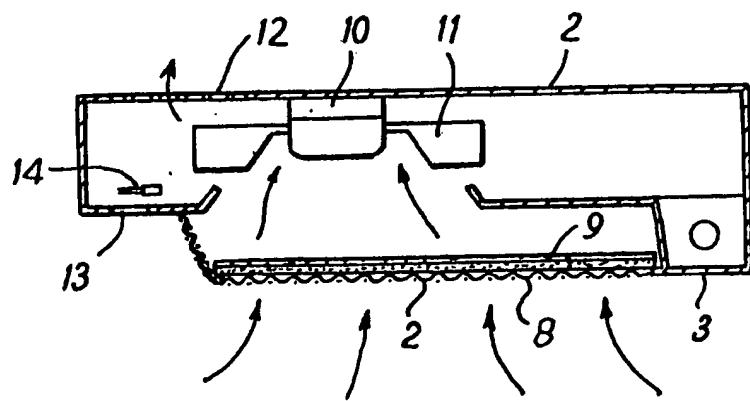
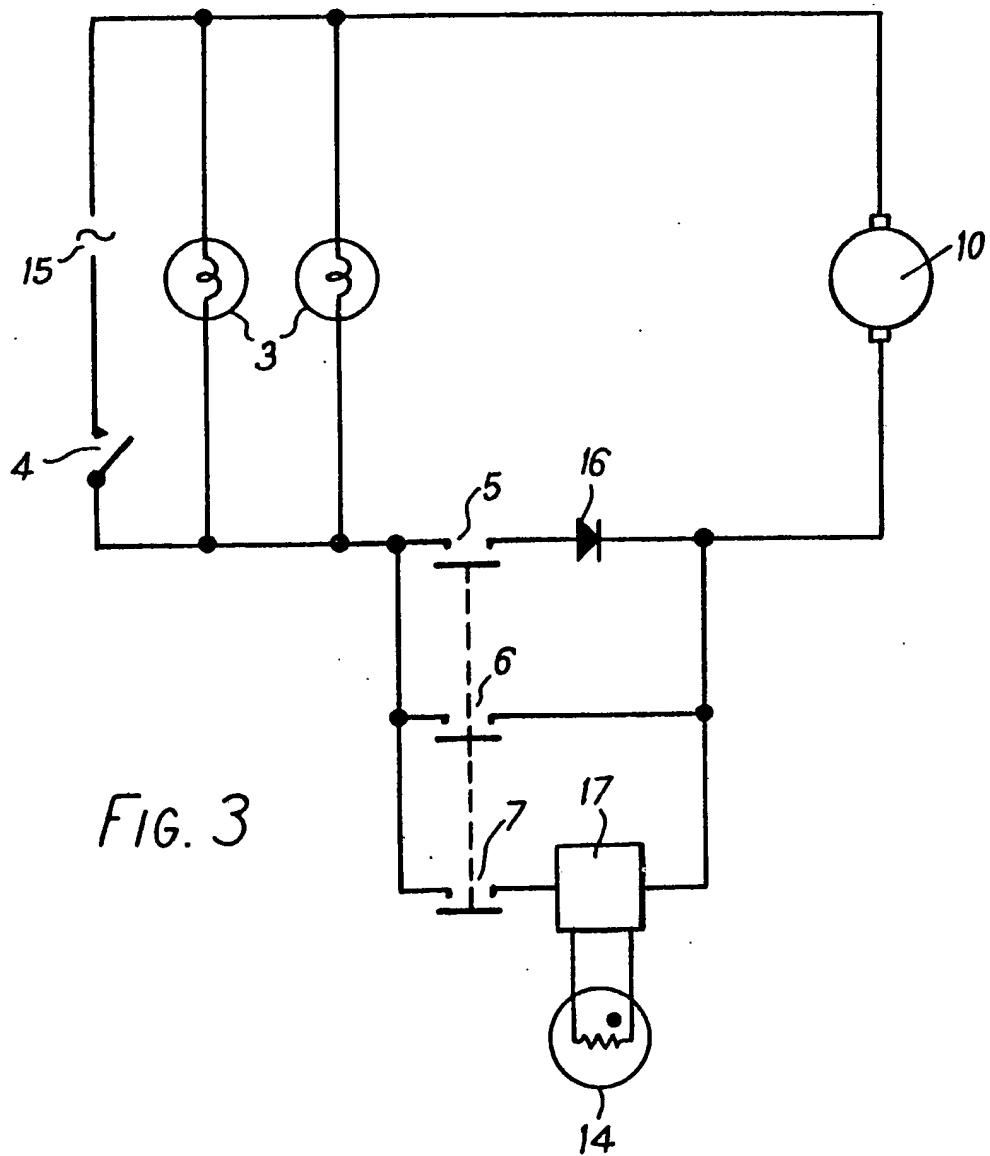


FIG. 2



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SPECIFICATION**COOKER HOOD**

The invention relates to a cooker hood.

According to the invention there is provided a cooker hood comprising a housing for mounting above a cooker; an electric fan in the housing mounted to draw in gases and vapour from the cooker; a temperature sensor in the housing; and circuit means which enable the temperature sensor to control the fan in accordance with the temperature at the housing.

Control of the fan speed may be continuous in accordance with the temperature or in steps. However, the preferred arrangement is the simplest, where the fan is switched on when the temperature rises above a predetermined level and switches off again when the temperature falls below a particular level.

With the arrangement in accordance with the invention it is possible to provide an automatic mode for the cooker hood whereby the fan operates only when the temperature is sufficiently high. In other words, the fan will only operate if the temperature has risen enough as a consequence of the cooker being used for a significant time or to a significant extent.

In a preferred arrangement, the automatic mode is optional and there are provided further control buttons for allowing continuous operation of the fan, perhaps at two alternative speeds.

The cooker hood may be of the kind which exhausts air to the exterior. Alternatively, the hood may be of the recirculatory kind which incorporates a filter for grease and fumes and recirculates the exhaust gases to the kitchen.

The invention will further be described with reference to the accompanying drawings, of which:

Figure 1 is a perspective view of a cooker hood in accordance with the invention;

Figure 2 is a sectional side elevation of the cooker hood of Figure 1; and

Figure 3 is a circuit diagram of the motor control arrangement for the cooker hood.

Referring to Figure 1, the cooker hood comprises a housing 1 for mounting above a cooker. The underside of the housing has a metal grill 2, through which gases and vapours from the cooker are drawn. Lights 3 to illuminate the cooker are included. On the front of the cooker hood is a set of push-button controls. Button 4 is an on/off button and controls the lights 3. Button 5 switches on a fan in the cooker hood at slow speed. Button 6 switches the fan on at full speed, and button 7 allows the fan to operate in an automatic mode to be described.

Referring to Figure 2 the hood is shown in side elevation and within the grill 2 there is a grease filter 8 surmounted by a charcoal filter 9 for absorbing fumes and smells.

Gases from the cooker are drawn through the filter by an electric fan which has a motor 10 and fan blades 11. The filtered gases are recirculated

through vents 12.

At the front of the cooker hood there is an aperture 13 above which is a thermistor 14. The thermistor detects the temperature at the cooker hood.

Referring now to Figure 3, there is shown the circuit diagram of the control arrangement for the cooker hood. The motor 10 is a commutator motor which derives current from an alternating current supply 15. Push-button 4 is an on/off switch which also illuminates the lamps 3.

Push-buttons 5, 6 and 7 have a mechanical interlocking action so that when a button is depressed it stays locked until another button is depressed. Push-button 5 connects the motor 10 to the alternating current supply through a diode 16. This effectively reduces the supply voltage and the motor runs at about half speed. Depression of button 6 by-passes the button 5 and the diode 16 so that the full voltage of the supply is applied to the motor 10. The motor therefore runs at full speed.

Depression of button 7 by-passes the push-button 6 (which is thereby disengaged) with a control circuit 17. The circuit 17 responds to the output from the thermistor 14. Circuit 17 includes a relay and when the temperature of thermistor 14 exceeds 40°C the relay is closed so that a direct connection is made between the mains supply and the motor 10. The motor therefore runs at full speed. When the temperature of the thermistor 14 falls below 40°C the relay cuts out and the motor 10 is cut off. Under normal operating conditions, the fan will therefore run if the temperature at the cooker hood is 40°C or above. Otherwise, the fan will automatically cut off.

The invention is not restricted to the details of the embodiment described above with reference to the drawings. For example, the temperature sensor may be a bi-metallic switch instead of a thermistor, the switch being arranged to close to energise the fan motor when the predetermined temperature is attained. The predetermined temperature is said in the example to be 40°C. However, it will be appreciated that this can be set to any desired level.

CLAIMS

1. A cooker hood comprising a housing for mounting above a cooker; an electric fan in the housing mounted to draw in gases and vapour from the cooker; a temperature sensor in the housing; and circuit means which enable the temperature sensor to control the fan in accordance with the temperature at the housing.

2. A cooker hood as claimed in claim 1 wherein the circuit means is such that the fan is switched on when the temperature rises above a predetermined level and is switched off again when the temperature falls below a particular level.

3. A cooker hood as claimed in claim 2 wherein the said predetermined level is substantially 40°C.

4. A cooker hood as claimed in claim 3 wherein a manual control is provided for over-riding automatic temperature-control of the fan and

allowing the fan to run continuously.

5. A cooker hood as claimed in claim 4 wherein the manual control is effective to select between half-speed and full-speed continuous running of the fan.

6. A cooker hood as claimed in claim 5 wherein half-speed operation of the fan is achieved by

switching a diode into circuit with the fan motor, the power supply being A.C.

- 10 7. A cooker hood as claimed in any of the preceding claims which is recirculatory.

8. A cooker hood substantially as hereinbefore described with reference to the accompanying drawings.

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